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ABSTRACT

This report analyzes the enrollment of race and sex groups in institutions of higher education in order to describe the differences in black-white and male-female enrollment. The analyses address the types of higher institutions attended and the types of academic programs experienced within these institutions. Findings indicate: (1) black enrollment throughout higher education in 1976 still remained heavily concentrated in the South; (2) traditionally black Southern institutions continued to enroll a significant proportion of the blacks participating in higher education in the South in 1976; (3) in 1974, black and female undergraduates and graduates, relative to whites and males, were still overrepresented in education and the social sciences and underrepresented in the technical sciences; and (4) the smaller proportion of blacks in professional schools, relative to black undergraduates and graduates, was more evenly distributed in academic programs in comparison to white professional students. (Author/EB)

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EQUALITY OF REPRESENTATION OF RAC AND SEX GROUPS IN HIGHER EDUCATION: INSTITUTIONAL AND PROGRAM ENROLLMENT STATUSES

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Gail E. Thomas

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Introductory Statement

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through four programs to achieve its objectives. The Policy Studies in School Desegregation program applies the basic theories of social organization of schools to study the internal conditions of desegregated schools, the feasibility of alternative desegregation policies, and the interrelation of school desegregation with other equity issues such as housing and job desegregation. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. It has produced a large-scale study of the effects of open schools, has developed Student Team Learning Instructional processes for teaching various subjects in elementary and secondary schools, and has produced a computerized system for school-wide attendance monitoring. The School Process and Career Development program is studying transitions from high school to post secondary institutions and the role of schooling in the development of career plans and the actualization of labor market outcomes. The Studies in Delinquency and School Environments program is examining the interaction of school environments, school experiences, and individual characteristics in relation to in-school and later-life delinquency.

This report, prepared by the Policy Studies in School Desegregation program, analyzes the enrollment of race and sex groups in institutions of higher education in order to describe the differences in black-white enrollment and male-female enrollment. The analyses address the types of higher education institutions attended and the types of academic programs experienced within these institutions. The report's use of a single recent representative data set allows a more reliable and systematic examination of these factors than has previously been possible.

Abstract

Office of Civil Rights data were used to examine the institutional and program enrollment statuses of race-sex groups in U.S. higher education at the national and regional levels. The following observations were derived: (1) Black enrollment throughout higher education in 1976 still remained heavily concentrated in the South; (2) Traditionally black Southern institutions continued to enroll a significant proportion of the blacks participating in higher education in the South in 1976; (3) In 1974, black and female undergraduates and graduates, relative to whites and males, were still overrepresented in Education and the Social Sciences and underrepresented in the Technical Sciences; (4) The smaller proportion of blacks in professional schools, relative to black undergraduates and graduates, were more evenly distributed in academic programs in comparison to white professional students.

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Introduction

The acquisition of a high school diploma is becoming a national phenomenon; thus, acquiring postsecondary schooling is almost a necessity for the average American (Willingham, 1970). In fact, few people would debate that high school graduation is currently less of an accomplishment and more of a formality which qualifies students for entry into higher education. In contrast, higher education represents a more competitive stage of schooling. It has been described by Astin and Panos (1969) as the principle social mechanism affecting an individual's occupational and economic outcome and general chance of upward mobility.

Investing in higher education as a means of upward mobility is particularly crucial for blacks and other minority groups who occupy low status positions in society. Describing the importance of education for blacks, Jaffe, Adams and Meyers (1968) noted that a black who fails to obtain a college education is less likely than a white who does not obtain a college education to be a white collar worker or enter a professional or technical job. The authors also note that, unlike a white who may have other mobility options, either a black "makes it" or he fails because he has no intervening options.

Whether or not blacks or Americans in general share this view regarding the importance of obtaining higher educational training is unclear. However, it is certain that there has been a substantial increase in the proportion of Americans furthering their education beyond high school. Christopher Jencks et al. (1972) noted that in the decade of the 20's, just under 20 percent of the U.S. population entered colleges while in 1970, approximately 40 percent entered college. Also, higher education, at one time a "privilege for the few," has become more accessible to

blacks and other minorities and low income groups and females. While these groups are currently more represented in higher education than in the past, their access to particular types of institutions has been limited (Astin, 1975, 1977; Brown & Stent, 1977).

Most previous educational research involving race and sex comparisons has not focused on the type of higher educational institutions that students attend. Instead the concern has been primarily with investigating "who goes to college" and the type of factors that determine college entry and subsequent educational attainment (Porter, 1974; Portes & Wilson, 1976; Kerckhoff & Campbell, 1977; Thomas, Alexander & Eckland, 1977; Thomas, 1977). Although this research addresses an important part of the issue of educational access, it does not address the type of higher educational institutions that students attend and their educational activities and experiences in such institutions. Alexander Astin (1977), who has probably provided the best evidence concerning the importance of considering where students go to college, stated the following:

> Many legislators and policy makers are content to define access simply as the student's ability to enroll somewhere. If institutions were roughly equivalent in their resources and offerings, that definition would probably make sense. However, institutions are by no means equivalent, and the student's future may depend as much on the kind of institution as on attendance versus nonattendance. With the proliferation of public community colleges and the substantial financial aid now available to needy students, the real issue of access is not who goes to college, but who goes where to college (Astin, 1977; p. 8).

Apart from Astin (1977), only a few researchers have empirically focused on group differences in the type and quality of postsecondary institutions that students attend (Institute for the Study of Educational Policy-ISEP, 1976; Brown & Stent, 1977; Thomas, 1978). In evaluating the status of blacks in this respect, Howard University researchers (ISEP, 1976) noted that in 1973, blacks were disproportionately represented in two-year and junior colleges and in less prestigeous four-year colleges. Thomas (1978) also observed that the proportion of blacks in non-four-year colleges somewhat exceeded the proportion of whites in the aggregate, based upon 1972 survey data.

Howard University researchers (ISEP, 1976) also noted that, in 1974, about one-half of the B.A. degrees obtained by blacks were from traditionally black institutions; and that white women were more heavily concentrated in two-year private colleges than were white males. The sex difference between whites, however, was smaller than the race differences between blacks and whites. A central implication from this research is that while blacks and females may have gained entry to higher education, these groups--particularly blacks--may be receiving a very different type and quality of higher educational training.

One objective of this paper is to examine in greater detail how black and white males and females are distributed across various U.S. undergraduate, graduate and professional educational institutions. A second objective is to evaluate how these students are distributed in academic programs within institutions. The entry of students in various types of higher educational institutions is one form of selection and differentiation among students <u>between</u> institutions, while the enrollment of students in

various academic programs may be viewed as a further basis of differentiation among students within institutions. More importantly, both the type of higher educational institutions that students enter and the type of academic fields that they pursue have been regarded as two critical factors that not only create different educational environments for students, but that also exert varying effects on students' subsequent educational and occupational outcomes (Jencks & Brown, 1975; Crain, 1971; ISEP, 1976).

The few existing studies of program enrollment indicate large race and sex differences in major field choice at various levels of higher education (Jaffe, Adams & Meyers, 1969; ISEP, 1976; Brown & Stent, 1977). For example, black undergraduates and graduates have been found to be still primarily enrolled in Social Sciences and Education--two fields that they have traditionally entered in greater proportions than whites (ISEP, 1976; Brown & Stent, 1977). Also, at both the undergraduate and graduate level, blacks relative to whites have been found to be highly underrepresented in the Technical Sciences (i.e., Engineering, Math and the Physical Sciences) and the Biological and Life Sciences (Wilburn, 1974; ISEP, 1976; Brown & Stent, 1977). Recent data concerning women also show that, in comparison to men, they too are underrepresented in the Natural and Technical Sciences (Malcolm, Hall & Brown, 1978; Vetters, 1978).

The lack of representation of blacks and females in the Natural and Technical Sciences has been explained as a combined function of inadequate counseling and preparation and the poor grades and level of encouragement received by these groups throughout the school which discourages them from declaring undergraduate and graduate majors in the Natural and Technical Sciences (Malcolm, Hall & Brown, 1978; Wilburn, 1974). Wilburn (1974) further noted that the low enrollment of minority groups in the scientific

and technical areas places a major constraint on their access to a wider variety of high-status and well-paying jobs.

Less is known about the distribution of race and sex groups in professional programs. However, whites and males exceed blacks and females in enrollment in professional schools (ISEP, 1976; Brown & Stent, 1976). Howard University researchers (ISEP, 1976) noted that the participation rate of blacks in professional programs is negatively related to the length and financial cost of training. [This did not apply to black students who were enrolled in Law and Medicine in traditionally black professional institutions. A greater proportion of blacks were found to be enrolled in Law and Medicine in black than in white institutions; these blacks were also found to have higher completion rates than blacks in predominantly white institutions (ISEP, 1976; Carnagie Commission on Higher Education, 1971)].

The studies cited show that some empirical effort has been devoted to investigating how race and sex groups are distributed in higher educational institutions and academic programs. This study expands upon these past efforts in two respects. First, it employs more recent and representative data. For example, Astin's (1975, 1977) studies were based on data collected between 1960 and 1975 and were restricted to undergraduate sample populations. Brown & Stent's (1977) and the Howard University work (ISEP, 1976) did include graduate and professional level data; however, most of these data were collected between 1970 and 1973. This study employs two of the most recent data sets from the Office of Civil Rights 1974 and 1976 survey of virtually all U.S. undergraduate, graduate and professional institutions of higher education.

A second feature of this study is that, relative to other studies, it offers a more systematic assessment of the access of race and sex groups to higher education. Past studies which extend beyond the undergraduate level (ISEP, 1976; Brown & Stent, 1977) were based on multiple data sources (i.e., U.S. Census, Office of Civil Rights, National Center for Educational Statistics) which employed different methods of data collection and processing. However, the present use of a single data source which includes undergraduate, graduate, and professional institutions enables a more reliable and systematic assessment of the status of race and sex groups in higher education.

Method

Data

In 1968, the Office of Civil Rights (OCR) in the Department of HEW initiated a higher educational survey which collected data on student enrollment by ethnicity and sex for all institutions of higher education that received Federal funding; therefore, the sample included most U.S. institutions of higher education. The participating institutions reported enrollment data by students' academic fields of study. Since 1968, the higher educational survey has been conducted biannually and is currently under the auspices of the National Center for Educational Statistics (NCES).

The 1976 data involved some 3,068 institutions and are the most recent available data. These data were used to address questions concerning the distribution of groups in various types of higher educational institutions. However, the 1974 OCR data (which included approximately 2,994 institutions) rather than the 1976 data were used in this study to examine the distribution of students in academic programs within institutions. The 1976 data did not have separate information on student enrollment

in Education and the Social Sciences. As noted, blacks have traditionally enrolled in higher proportions in these fields. The 1974 data contained separate information for these two fields which allowed a current examination of the distribution of blacks in Education and the Social Sciences.

The definition of "whites" in this paper should also be clarified. Originally, whites in the 1974 and 1976 data included both American-born whites and students of foreign origin. Because this analysis is primarily concerned with race differences between U.S. blacks and whites, the decision was made to eliminate the students of foreign origin (approximately 15%) from the 1976 data. However, it was not possible to delete them from the 1974 data because whites and students of foreign origin were included in a single category.

Findings

Race and Sex Distributions by Institutional Enrollment

The first part of the analysis examines the extent to which race and sex groups who had gained access to higher education in 1976 were equally distributed in various types of higher educational institutions. Comparisons of percentages and black-white ratios are made based upon the following institutional classifications: two-year vs. four-year; undergraduate vs. graduate and professional; public vs. private. In addition, the distribution of groups at the national level and within geographic regions of the country are presented. Evaluating group distributions within regions is especially important because higher educational systems, demographic characteristics of students, and the conditions of education may vary substantially across regions. For example, the 1969 Adams States' controversy identified nine southern states (Louisiana, Georgia, Maryland, Virginia, Mississippi, Oklahoma, North Carolina, Florida, Arkansas) as maintaining racially

segregated systems of higher education (Smith, 1975). As a consequence, the South has been often singled out as the region where issues of inequality of educational access are most severe. This paper will show how race and sex groups were represented in 1976 in higher educational systems in the South and in other regions of the country.

Table 1 shows the distribution of race and sex groups by region, institutional type and control. Similar comparisons have been made by

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Table 1 About Here

Astin (1977) and Howard University researchers (ISEP, 1976), primarily at the undergraduate level between 1973 and 1975. Therefore, differences and similarities between these earlier comparisons and the present analysis will be noted where possible.

Beginning with the regional distributions, Table 1 shows that in 1976, at every level of higher education, black enrollment was highly concentrated in the South: 54 percent of the black undergraduates, 41 percent of the black graduates, and 42 percent of the black professional students were enrolled in southern institutions vs. 28 percent, 29 percent and 27 percent of the whites at these three levels. Next, a larger percentage of black undergraduates (44.9%) were enrolled in two-year colleges in 1976 than their white counterparts (37.1%). Astin (1977) and Howard researchers (ISEP, 1976) made the same observation from 1975 and 1973 data.

A comparison of the sexes in Table 1 shows that in 1976, white males exceeded white females in enrollment at every level of higher education, but among blacks, males exceeded females only at the professional level. Percentage calculations from the base N's (which are not presented) show that in 1976, white males constituted 52 percent of the white undergraduates,

65 percent of the white graduates, and 78 percent of the white professional students.

Sex distributions in higher educational enrollment were different for blacks than whites in 1976. The proportion of black males among black undergraduates and graduates was lower than the proportion of black females; 45 percent of the black undergraduates and 46 percent of the black graduates were males. But at the professional level, black males were more numerous than black females (65 percent vs. 35 percent). Only Howard researchers (ISEP, 1976) presented sex comparisons in past studies and their analysis was restricted to the undergraduate level. They similarly noted that in 1973, white males exceeded white females in undergraduate enrollment. But contrary to these findings, they found that in 1973 black male undergraduate enrollment was higher than that of black females.

A final observation from Table 1 is that the proportion of students in higher education who were black in 1976 decreased as the level of schooling increased: 11.9 percent of the undergraduates were black while only 6.1 percent of the graduate students and 4.8 percent of the professional students were black. Census estimates indicated that in 1976, blacks constituted 12.5 percent of the college population aged 18-24 (U.S. Bureau of the Census: Current Population Reports, 1977). Therefore, these data clearly show that blacks were underrepresented in higher education in 1976 at all levels relative to their proportional representation in the college aged population. This was especially true at the graduate and professional levels.

Table 2 considers the variation in the distribution of students in public and private institutions by region. Blacks more frequently than whites attended public two-year colleges in all regions in 1976. The

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Table 2 About Here
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racial difference was greatest in the West, where 70 percent of the blacks were enrolled in public two-year colleges vs. 48 percent of the whites. Black enrollment in private two-year colleges also exceeded white enrollment in the Northeast, Midwest and South. Table 2 also shows that, in 1976, blacks were less likely than whites to have entered public four-year colleges in all regions. This trend also held for private four-year colleges in all regions except the South, where the black-white percentage enrollment was about equal (18.9% vs. 17.6%).

Table 2 also shows that among graduate students in 1976, blacks more often than whites were enrolled in private institutions in all four regions, although public institutions enrolled the majority of black and white graduates in all regions except in the Northeast. Among professional students, more blacks than whites entered public institutions in the Northeast, Midwest and West. But in the South, a higher proportion of blacks than whites were in private professional schools in 1976.

The Distribution of Blacks in Traditional Black vs. Non-Black Institutions

The high concentration of blacks in private professional schools in the South in 1976 may be related to the disproportionate enrollment of blacks in traditionally black southern institutions. Given this possibility, and the major role of black institutions in educating blacks (ISEP, 1976; Brown & Stent, 1977), this study examined how black students were distributed in 1976 in traditionally black institutions (TBI) vs. non-traditionally black institutions (NTBI) in the South versus other regions in the U.S. Table 3 reports these results.

Table 3 About Here

First, calculations from the base N's show that only 2 percent (6,024/295,415) of the black undergraduates in Non-Southern regions (the Northeast, West and the Midwest) were enrolled in traditionally black institutions in 1976. These institutions were public and private four-year colleges rather than two-year colleges. Similar calculations for the South show that, in 1976, traditionally black institutions enrolled 47 percent (144,753/309,731) of black undergraduates. Thus, the prevalent role of black Southern institutions in their intake of black undergraduates was clearly apparent in 1976. Finally, Table 3 indicates that traditionally black graduate and professional Southern institutions also enrolled a larger proportion of blacks relative to Non-Southern black institutions. The former institutions enrolled approximately 40 percent of the black graduate and professional students in the South (5,393/13,430) while in the Non-South, black graduate and professional students were almost exclusively enrolled (99.9%) in non-traditionally black institutions.

In summary, when considering all traditionally black Southern institutions (i.e. undergraduate, graduate and professional), the base N's in Table 3 suggest that these institutions averaged a black enrollment of approximately 43 percent in 1976. The high proportional enrollment of blacks in these institutions is probably related to the large majority of black institutions that are located in the South (ISEP, 1976; Turner & Michael, 1978), the high proportion of blacks who live in the South (53% in 1976; U.S. Bureau of Census: Statistical Abstract, 1977), and the proportion of college-eligible blacks who obtain their higher education in the South (Willingham, 1970).

Race and Sex Distributions by Major Fields

The second part of our analysis examines the distribution of undergraduate, graduate and professional students in academic programs at the National level for 1974 within regions of the country. As with the previous section, patterns of racial differences are the primary concern. However, major sex differences are also noted. Table 4 presents the National distribution for two- and four-year students, and Table 5 reports the regional distributions for the total undergraduate population (e.g., two- and four-year institutions combined).

Tables 4 and 5 About Here

Table 4 shows that, in 1974, two-year students of both races were primarily enrolled in Business, Social Work and Public Health, and the Technical Sciences. In general, a higher proportion of female than male two-year college students were Education, Social Work and Public Health majors in 1974, while the reverse sex pattern occurred in the Technical Sciences.

For four-year students, racial differences in major field enrollment in 1974 were larger than were differences among two-year students. Black four-year college students were twice as likely as their white male counterparts to major in Education (16.2% vs. 7.9%). They were also more likely than white males to major in the Social Sciences (19.7% vs. 14.8%), but less likely than white males to major in the Technical Sciences (11.3% vs. 17.8%).

The racial patterns for male four-year students were also apparent among females; but differences were smaller for females than males (especially in Education and the Technical Sciences).

An additional racial difference among females is that twice as many black as white females were Business majors in 1974 (14.0% vs. 7.5%). Also, a higher percentage of white females declared "other" majors (i.e. Foreign Languages, Home Economics, Library Sciences) than black females (35.6% vs. 24.8%). Finally, major sex differences occurring for black and white four-year students in 1974 included the higher proportion of females than males in Education and the higher proportion of males than females in Business and Management and the Technical Sciences.

Table 5 presents regional distributions for the total undergraduate population. The race and sex patterns are generally consistent with program enrollment trends at the National level, with a few exceptions. In 1974, white and black males were about equally enrolled in Education in the Northeast (6.3% vs. 6.2%), but the higher enrollment of white males in Education (observed at the National level) was apparent in the Midwest and West and especially apparent in the South, where 17.3% of the black male undergraduates were enrolled in Education vs. only 7.7 percent of the white males. Also, consistent with the National level in all regions except the West, black males were more heavily concentrated than white males in Social Work and less represented in the Technical Sciences than were white males.

Racial comparisons across all four regions for females show that black females were more highly concentrated in Business than white females in 1974 and less concentrated than white females in remaining major fields. This was consistent with the National trend. Table 5 also shows that, among males and females in all regions, a higher percentage of blacks than whites did not declare a major field in 1974. Finally, as the National patterns indicated, the regional trends in Table 5 regarding sex

distributions show that black and white females were more highly concentrated in Education in 1974 than males in all regions. In addition, black and white males exceeded their sex counterparts in enrollment in Business and Management and the Technical Sciences in all regions.

Tables 6 and 7 show how graduate and professional students were distributed in major fields in 1974. It is important to keep in mind that

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Tables 6 and 7 About Here

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the percentages in Tables 6 and 7 (and in Table 5) were calculated separately for each race and sex subgroup. Also, these percentages indicate group differences in major field enrollment for those students who were actually enrolled in higher educational institutions in 1974. To determine how both group differences in representation across major fields and differences in entry to graduate and professional schools affect the availability of blacks and whites in each major field, it would be necessary to compare the number of blacks and whites in each major field category rather than to compare the percentages reported in Tables 6 and 7.

An example of the former procedure can be illustrated by calculating the white-black ratios from the base N's within specific major fields. For instance, in Table 6, the white-to-black ratio for graduate students in Business and Management is 20.9:1 (36,890 whites vs. 1,767 blacks); in the Natural Sciences 41.0:1; in the Technical Sciences, 25.9:1; in the Computer Sciences 49.3:1 and in the Professions 22.9:1. The white-to-black ratio for the college population aged 18-24 was 7.0:1 in 1974 (U.S. Bureau of the Census: Statistical Abstract, 1975, p. 131). Thus, these calculations clearly indicate that black graduates were severely underrepresented in major fields relative to their proportional representation in the 18-24

age cohort in 1974 as compared to whites. The only major fields among graduates where the ratio of white-to-black enrollment in 1974 was closer to the population 18-24 age cohort in that same year were Education (8.1:1) and Social Work and Public Health (8.7:1). The white-to-black ratio in 1974 for professional students in Law was 19.2:1; in Medicine, 14.8:1; and in Dentistry, 16.7:1. The underrepresentation of blacks in graduate and professional programs should be kept in mind throughout our discussion of Tables 6 and 7, which report the distribution of students in graduate and professional programs.

Table 6, concentrating on the distributions for graduate students, shows that racial trends in 1974 at the National level for graduates were similar to those which occurred for undergraduates. However, racial differences in Education and the Technical Sciences were greater among graduates in 1974 than among undergraduates. Proportionately, twice as many black as white graduates were Education majors in 1974 (33.3% vs. 17.1%), and three times as many white as black graduates (primarily white males vs. black males) majored in the Technical Sciences (14.2% vs. 4.1%).

As for sex differences, as with undergraduates, more black and white female than male graduates majored in Education in 1974, while more black and white males than females majored in Business and Management and the Technical Sciences. Also, a sizeable proportion (about 25%) of the graduate students, like undergraduates, chose "other" majors in 1974. But unlike undergraduates, and not surprisingly so, a much smaller proportion of graduates (about 4%) did not declare majors in 1974. Approximately 19 percent of the whites and 20 percent of the blacks entering as first year undergraduates had not declared majors in 1974 (See Table 4).

The distribution for professional students in Table 6 show that both the races and the sexes were much more evenly distributed in academic programs in 1974 relative to graduate and undergraduate students. But as previously noted, far fewer blacks and, to a lesser extent, females, were represented at the professional school level than at the undergraduate and graduate levels. Therefore, the somewhat misleading pattern here, which suggests an "evenness of distribution" between the races and sexes in professional programs, does not take the problem of overall underrepresentation of blacks and females in professional schools into account.

Major race differences among professional students in 1974 included the somewhat larger proportion of black males in Medicine than white males (32.9% vs. 26.0%) and the larger proportion of white than black females in Law (45.8% vs. 39.2%). The only sex difference was the higher percentage of white and black males in Dentistry than females.

Table 6 displayed distributions for graduate and professional students at the National level. Table 7, which presents these distributions separately by region, indicates trends that are basically consistent with the National patterns. For example, the higher proportion of black than white graduates majoring in Education found at the National level held across all regions in 1974. However, the racial difference was greatest in the Midwest. Also, the finding at the National level of a higher proportion of white than black male graduates in the Natural and Technical Sciences was consistent across all regions. And sex differences favoring white and black female

graduates in enrollment in Education, and male graduates in enrollment in Business and Management and the Technical Sciences, held for all regions.

For professional students, the National trend in 1974 of a higher enrollment of black than white males in Medicine was also apparent in the Northeast, Midwest and the South, but to a lesser extent in the West. Lastly, the higher proportion of white than black females in Law at the National level was clearly consistent in 1974 across all four regions.

Major Field Distribution of Blacks in Traditionally Black and Non-Black Institutions

The final four tables (8-11) in the analysis show how black undergraduate, graduate, and professional students were distributed in academic programs in traditionally black institutions (TBI's) vs. non-traditionally black institutions (NON-TBI's). The primary purpose is to determine whether in 1974 there were major differences in academic field choices between blacks who attended traditionally black institutions vs. non-traditionally black institutions. Of particular interest is whether the high concentration of blacks in Education and the Social Sciences previously observed and their low enrollment in the Natural and Technical Sciences differed depending upon enrollment in traditionally black vs. non-black institutions. Tables 8 and 9 present these results for black undergraduates.

Tables 8 and 9 About Here

Table 8 suggests striking differences in the proportion of blacks enrolled in Education and the Social Sciences in traditional

black two-year colleges vs. non-black two-year institutions. Approximately five times as many black males and females majored in Education in 1974 in traditionally black two-year institutions than did blacks in two-year non-black institutions. Also, three times as many black males and females majored in the Social Sciences in two-year black institutions than did blacks in two-year non-black colleges. The institutional pattern was reversed in 1974 for black enrollment in Business. More blacks in non-black two-year colleges were enrolled in Business than blacks in black two-year colleges. About 27 percent of the black males in non-black two-year colleges were Business majors in 1974 vs. only 15.3 percent in black two-year colleges. The corresponding percentages for black females were 31.2 percent and 23.5 percent respectively. Apart from the Technical Sciences and Social Work and Public Health, no major differences in program enrollment existed for black two-year students in the Natural Sciences and other remaining fields. But in the Technical Sciences, black males in non-black two-year colleges averaged a somewhat higher rate of enrollment (23.7%) than black males in two-year black colleges (19.2%). And black females in non-black two-year colleges were seven times more likely to major in Social Work and Public Health than black females in black two-year colleges (24.0% vs. 3.1%).

Considering next the enrollment of blacks in programs in four-year colleges, Table 9 shows that, in 1974, blacks in traditionally black four-year colleges were also much more likely to major in Education than were blacks in non-black four-year colleges. But the difference was not as great between four-year college blacks in 1974 as it was between two-year college blacks.

Second, Table 9 shows that a higher proportion of blacks in black four-year colleges (20.4%) were Business majors in 1974 than were blacks in non-black four-year colleges (16.3%). In addition, four times as many blacks (27.8%) in four-year non-black colleges declared "other" majors in 1974 than blacks in black four-year colleges (6.1%). Lastly, Table 9 shows that black four-year students in traditionally black and non-black institutions were almost equally distributed in the Social and Technical Sciences and in remaining major fields in 1974.

Tables 10 and 11 show how black graduate and professional students were distributed in academic programs in traditionally black vs. non-black institutions. Table 10 shows that in 1974, a higher percent-

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Tables 10 and 11 About Here

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age of blacks in traditionally black graduate schools were Education majors than blacks in non-traditionally black graduate schools (40.0% vs. 33.8%). The trend was reversed for the Social Sciences: a slightly larger proportion of black students in non-traditionally black graduate schools were Social Science majors in 1974 than were blacks in traditionally black graduate schools (14.2% vs. 10.7%). It is interesting to note that differences between black graduate Education and Social Science majors in traditionally black versus non-black institutions were much smaller in 1974 than were differences between black undergraduates who attended these institutions.

Finally, little difference existed in 1974 between black graduates who majored in the Technical Sciences and in remaining fields in traditionally black and non-black institutions. But,

interestingly, although the enrollment of black graduates in the Natural Sciences in both the latter institutions was quite small, their enrollment in traditionally black institutions exceeded their enrollment in non-black graduate institutions (5.0% vs. 2.1%) in 1974.

Examining the distributions for black professional students in traditionally black and non-black schools, Table 11 shows that there was a striking difference in 1974 in Dentistry enrollment. Almost four times as many blacks in traditionally black professional schools were enrolled in Dentistry than blacks in non-black professional schools (21.9% vs. 5.8%). But in Law and Medicine, the proportional black enrollment in black and non-black schools was approximately equal in 1974.

To summarize, some important differences existed in 1974 in the distribution of blacks in major fields in traditionally black versus non-black institutions. The most important differences involved Education and the Social Sciences. Differences in these fields were greater at the undergraduate level (particularly among two-year students) than at the graduate level. But at both levels, a much higher proportion of blacks who entered traditionally black institutions in 1974 majored in Education than blacks who entered non-traditionally black institutions. This may mean that traditionally black institutions had not yet divorced themselves in 1974 from the historical mission of "training black educators" to the extent that non-traditionally black institutions had. However, in 1974, a much higher proportion of four-year black undergraduates and black graduate students in non-traditionally black institutions majored in the

Social Sciences than their counterparts in traditionally black institutions. Thus non-traditionally black institutions may have shifted their emphasis for black program enrollment from Education to the Social Sciences. But in both traditionally black and non-black institutions, the percentage of black undergraduates and graduates majoring in the Natural and Technical Sciences were in general equal and quite small compared to their enrollment in Education and the Social Sciences.

Lastly, comparisons for black professional students in traditionally black versus non-black institutions showed striking differences in Dentistry enrollment. A much higher percentage of blacks majored in Dentistry in traditionally black schools than blacks in non-traditionally black schools.

Summary

This study employed recent data to more extensively assess the institutional and program enrollment statuses of race and sex groups in higher education. Several important findings were derived which complemented and in most instances extended previous findings. For example, the observation by Astin (1975) and others that blacks were disproportionately represented in two-year public and private colleges was confirmed in this study using 1976 data at the National level and throughout most regions of the country. More importantly, black enrollment in 1976 in all types of higher educational institutions (i.e., undergraduate, graduate and professional) was found to be highly concentrated in the South.

More detailed analyses involving regional distributions of blacks in traditionally black and non-black institutions indicated that in

1976, traditionally black institutions in the South enrolled at least 40 percent of the blacks who participated in higher education in the South. Thus, the critical role of these institutions in providing educational access to a substantial portion of blacks, noted by Howard University researchers (ISEP, 1976) and Brown and Stent (1977), was clearly indicated by present data.

A third major finding concerning institutional enrollment was that blacks were still greatly underrepresented at all levels of higher education relative to their proportional representation in the college-age population. However, the problem of black underrepresentation was most severe at the graduate and professional levels of schooling. This finding strongly suggests that while the issue of black higher educational access must be addressed in general, greater priority may be needed at these more competitive levels of schooling (e.g., at the graduate and professional levels).

The second part of this study examined the program enrollment statuses of race and sex groups. The results indicated that traditional race and sex distinctions regarding enrollment in Education and the Social and Technical Sciences were still apparent in 1974 among undergraduate and graduate students. A much higher proportion of blacks and females than whites and males majored in the latter two fields. In addition, a greater percentage of males than females were enrolled in the Technical Sciences; and white males exceeded black males in enrollment in the Technical Sciences.

Program distribu ions for professional students suggested that race and sex groups were more evenly distributed in comparison to

undergraduate and graduate students. The major racial difference for professional students was that a higher proportion of black males than white males were enrolled in Medicine and a higher proportion of white females than black females entered Law in 1974. The most important sex difference was that black and white males were much more highly represented in Dentistry in 1974 than their female counterparts.

In the last part of the analysis, the program enrollment statuses of blacks in traditionally black vs. non-black institutions was examined. The major finding was that a much higher proportion of black undergraduates and graduates who were enrolled in traditionally black institutions in 1974 majored in Education than blacks who attended non-traditionally black institutions. In contrast, black four-year college students and graduate students in non-traditionally black institutions had a higher enrollment rate in the Social Sciences than blacks in traditionally black institutions. The most striking difference among blacks who attended black professional vs. non-black professional institutions in 1974 was that a substantially higher percentage of blacks in traditionally black institutions were enrolled in Dentistry than blacks in non-black institutions.

Discussion and Implications

This research clearly illustrates that issues concerning the higher educational access of race and sex groups extends beyond what Astin (1975) has described as "the ability of students to enroll somewhere." It specifically indicates that differences in group higher educational access varied by the types of institutions that students attended and the types of academic programs that they entered within

institutions. Both types of enrollment statuses were initially hypothesized as educational experiences that might differentially affect student career outcomes. Future research is needed to examine s hypothesis and broader issues bearing upon the relationship between various higher educational attainments and labor market gains. Major questions along this line might include: (1) To what extent do blacks and whites who have earned a two-year college education differ in terms of jobs and income obtained? (2) How do blacks with a two-year college education fare in the labor market relative to blacks with a four-year college education? (3) How do blacks who have attended traditionally black institutions compare with blacks who have attended non-traditionally black institutions in terms of job and income attainment? (4) To what extent do the labor market experiences of race and sex groups differ for students who enter comparable academic majors across different institutions and for students who enter different academic majors within the same educational institutions?

These research questions are based on the assumption that individuals have successfully completed their educational training and have entered the labor market. However, not all individuals are successful in completing their higher educational training. Thus a second important future inquiry is in determining the extent to which groups who have gained access to college are successful in completing their training. For example, Howard researchers (ISEP, 1976) found that black undergraduates were less successful than white undergraduates in completing college. Thus the degree to which race and sex groups are successful at all levels of higher education should be examined with appropriate data.

A third issue for future study concerns the disproportionate enrollment of blacks in traditionally black Southern institutions. More data is needed addressing: (1) The mission of these institutions in educating blacks; (2) The financial status of these institutions relative to other institutions; (3) The social and political status of these institutions in the black community and larger social community. Also, additional research on factors that limit and enhance the mobility of blacks in higher educational institutions outside of the South is critically needed.

Fifth, the overall underrepresentation of blacks and to a lesser extent white females at all levels of higher education is a broad issue that must be addressed by the larger educational community. For example, secondary school educators and administrators must more effectively confront the problem of black high school attrition. In 1975, black drop-out rates still exceeded those of whites with the differential being greatest between males: 27.7 percent of black males were high school drop-outs in 1975 vs. 13.7 percent of the white males. The percentages for black vs. white females were 23.4 and 15.6 percent respectively. Also, the high underrepresentation of blacks and white females at the graduate and professional levels suggests that educators and policy administrators must not only be committed to getting these groups <u>into</u> college, but also to getting them <u>out</u> of college and <u>into</u> graduate and professional schools.

Sixth and lastly, this study suggested that in 1974 blacks and females were still disproportionately enrolled in Education and the Social Sciences relative to the Natural and Technical Sciences. Thus,

additional research is needed concerning: (1) How blacks and females come to choose their majors; (2) the type of information and counseling that they receive concerning academic majors; and (3) the subsequent career gains that they achieve as a result of selecting various majors.

An examination of the latter issues and similar issues might facilitate a better understanding of why it is that certain stereotypical race and sex distinctions that have consistently characterized curriculum enrollment in the past still exist.

References

Astin, A. W. & Panos, R. J. The Educational and Vocational Development of College Students. Washington, D.C.: American Council on Education, 1969.

Astin, A. W. Preventing Students from Dropping Out. San Francisco: Jossey-Bass, 1975.

Astin, A. W. Equal Access to Postsecondary Education: Myth or Reality? UCLA Educator, 1977, 19(Spring), 8-17.

Brown, F. & Stent, M. D. Minorities in U.S. Institutions of Higher Education. New York: Praeger Publishers, 1977.

Crain, R. School Integration and the Academic Achievement of Negroes. Sociology of Education, 1971, 44(Winter), 1-26.

Crossland, F. E. Minority Access to College. New York: Schocken Books, 1971.

Institute for the Study of Educational Policy. Equal Educational Opportunity for Blacks in U.S. Higher Education: An Assessment. Washington, D.C.: Howard University Press, 1976.

Jaffe, A. J., Adams, W. & Meyers, S. G. Negro Higher Education in the 1960's. New York: Frederick A. Praeger, 1968.

Jencks, C., Smith, Acland, H., Bane, M. J., Cohen, D., Gintis, H., Heyns, B., & Michelson, S. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Harper and Row, 1972.

Jencks, C. S. & Brown, M. D. Effects of High Schools on Their Students. Harvard Educational Review, 1975, 45, 273-324.

Kerckhoff, A. C. & Campbell, K. T. Race and Social Status Differences in the Explanation of Educational Ambition. Social Forces, 1977, 55(March), 701-714.

Malcolm, S. M., Hall, P. Q. & Brown, J. W. The Double Bind: The Price of Being a Minority Woman in Science. Washington, D.C.: American Association for the Advancement of Sciences, 1976.

McPartland, J. M. Desegregation and Equity in Higher Education and Employment: Is Progress Related to the Desegregation of Elementary and Secondary Schools? Forthcoming in Law and Conterporary Society, 1978.

Porter, J. N. Race, Socialization and Mobility in Educational and Early Occupational Attainment. American Sociological Review, 1974, 39(June), 303-316.

Portes, A. & Wilson, K. L. Black-White Differences in Educational Attainment. American Sociological Review, 1976, 41(June), 414-431.

Thomas, G. E., Alexander, K. L. & B. K. Eckland. Access to Higher Education: How Important are Race, Sex, Social Class, and Academic Credentials for College Access? Center for Social Organization of Schools. Baltimore: Johns Hopkins University, 1977.

Thomas, G. E. Race and Sex Effects on Access to College. Center for Social Organization of Schools. Baltimore: Johns Hopkins University, 1977.

Thomas, G. E. The Influence of Ascription, Achievement and Educational Expectations on the Postsecondary Enrollment of Blacks and Whites. Center for Social Organization of Schools. Baltimore: Johns Hopkins University, 1978.

Turner, W. H. & Michael, J. A. A Definitive List of Traditionally Black Institutions. Washington, D.C.: National Center for Education Statistics, 1978.

U.S. Bureau of the Census. Metropolitan Area Statistics. Washington, D.C.: U.S. Department of Commerce, 1971.

U.S. Bureau of the Census. Statistical Abstract of the United States. Washington, D.C.: U.S. Department of Commerce, 1975.

U.S. Bureau of the Census: Statistical Abstract of the United States. Washington, D.C.: U.S. Department of Commerce, 1976.

U.S. Bureau of the Census: Statistical Abstract of the United States. Washington, D.C.: U.S. Department of Commerce, 1977.

Vetters, R. Some Statistical Comments on Women Doctoral Scientists and Engineers. Washington, D.C.: American Association for the Advancement of Science, 1977.

Wilburn, A. L. Careers in Science and Engineering for Black Americans. Science, 1974, 184, 1148-1154.

Willingham, W. W. Free-Access Higher Education. New York: College Entrance Examination Board, 1970.

Table 1

Regional, Institutional Type and Control Distributions for Full-Time First-Year Undergraduates, Graduate and Professional Students by Race and Sex, 1976

Region	Male		Female		Male and Female	
	Black	White	Black	White	Black	White
	Undergraduates					
NE[a]	14.2	24.4	14.7	25.2	14.5	24.8
MW	21.6	29.7	21.4	29.4	21.5	29.5
S	53.2	28.5	55.0	28.4	54.2	28.4
W	11.0	17.4	8.9	17.0	9.8	17.2
Nation (100%=)	(82,781)	(705,640)	(102,367)	(652,741)	(185,148)	(1,358,381)
Type of Institution						
Two-Year	45.9	37.8	44.1	36.3	44.9	37.1
Four-Year	54.1	62.2	55.9	63.7	55.1	62.9
Total (100%=)	(82,781)	(705,640)	(102,367)	(652,741)	(185,148)	(1,358,381)
Institutional Control						
Public	75.3	74.8	75.9	73.8	75.6	74.3
Private	24.7	25.2	24.1	26.2	24.4	25.7
Total (100%=)	(82,781)	(705,640)	(102,367)	(652,741)	(185,148)	(1,358,381)
Region	Graduates					
NE	19.9	23.8	17.8	25.4	18.8	24.4
MW	28.0	28.4	25.9	26.5	26.8	27.7
S	39.0	26.8	44.9	27.2	42.2	27.0
W	13.1	21.1	11.5	20.8	12.2	21.0
Nation (100%=)	(10,095)	(208,682)	(11,989)	(133,289)	(22,034)	(341,971)
Institutional Control						
Public	59.0	66.3	60.9	68.0	60.0	67.0
Private	41.0	33.7	39.1	32.0	40.0	33.0
Total (100%=)	(10,095)	(208,682)	(11,989)	(133,289)	(22,084)	(341,971)
Region	Professionals					
NE	20.7	22.3	24.1	26.9	21.9	23.2
MW	26.2	32.9	26.8	29.9	26.4	32.3
S	42.6	29.9	37.9	25.9	41.0	29.0
W	10.5	15.0	11.2	17.3	10.7	15.4
Nation (100%=)	(6,480)	(156,120)	(3,549)	(41,895)	(19,029)	(198,015)
Institutional Control						
Public	43.4	43.3	45.9	45.6	44.3	43.9
Private	56.6	56.6	54.1	54.4	55.7	56.1
Total (100%=)	(6,480)	(156,120)	(3,549)	(41,895)	(10,029)	(198,015)

[a] Northeast (NE) = CT, DE, ME, MA, NH, NJ, NY, PA, RI, VT.
Midwest (MW) = IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI
South (S) = AL, AR, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
West (W) = AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, VT, WA, WY

Distribution Within Region by Institutional Type and Control for Undergraduate, Graduates and Professional Students by Race and Sex, 1976

	Males		Females		Total	
	Black	White	Black	White	Black	White
UNDERGRADUATES						
Northeast						
Public Two-Year	37.7	31.2	37.4	28.5	37.5	29.9
Four-Year	25.2	26.3	24.9	29.7	25.0	28.0
Private Two-Year	6.7	3.4	10.2	7.1	8.7	5.2
Four-Year	30.4	39.0	27.5	34.7	28.8	36.9
Total (100% =)	(11,793)	(172,248)	(15,036)	(164,350)	(26,829)	(336,598)
Midwest						
Public Two-Year	39.3	31.3	38.0	29.4	38.6	30.4
Four-Year	33.3	45.2	37.3	46.7	35.5	45.9
Private Two-Year	6.7	1.6	7.5	2.2	7.1	1.9
Four-Year	20.7	21.8	17.1	21.6	18.7	21.7
Total (100% =)	(17,866)	(209,599)	(21,951)	(191,663)	(39,817)	(401,262)
South						
Public Two-Year	35.8	34.8	34.6	31.1	35.2	33.0
Four-Year	40.2	45.6	42.8	47.4	41.6	46.5
Private Two-Year	4.5	2.7	4.0	3.1	4.2	2.9
Four-Year	19.4	17.0	18.6	18.3	18.9	17.6
Total (100% =)	(44,018)	(200,833)	(56,266)	(185,572)	(100,284)	(386,405)
West						
Public Two-Year	73.4	49.9	67.0	46.3	70.2	48.2
Four-Year	19.2	36.8	23.6	38.4	21.4	37.6
Private Two-Year	0.5	1.1	1.2	2.2	0.9	1.6
Four-Year	6.9	12.2	8.2	13.1	7.6	12.6
Total (100% =)	(9,104)	(122,960)	(9,114)	(111,156)	(18,218)	(234,116)
GRADUATES						
Northeast						
Public	33.5	36.2	36.0	37.5	34.8	36.8
Private	66.5	63.7	64.0	62.5	65.2	63.2
Total (100% =)	(2,008)	(49,602)	(2,135)	(33,905)	(4,143)	(83,507)
Midwest						
Public	68.4	78.2	70.1	79.2	69.3	78.6
Private	31.5	21.8	29.9	20.8	30.7	21.4
Total (100% =)	(2,822)	(59,233)	(3,101)	(35,368)	(5,923)	(94,601)
South						
Public	63.6	74.3	64.9	78.8	64.4	76.1
Private	36.4	25.7	35.1	21.2	35.7	23.9
Total (100% =)	(3,943)	(55,885)	(5,379)	(36,299)	(9,313)	(92,182)
West						
Public	64.1	74.1	63.0	76.8	63.6	75.2
Private	35.8	25.8	37.0	23.2	36.4	24.8
Total (100% =)	(1,322)	(43,962)	(1,374)	(27,719)	(2,696)	(71,681)
PROFESSIONALS						
Northeast						
Public	32.3	24.2	38.3	24.0	34.6	24.2
Private	67.7	75.8	61.7	76.0	65.4	75.8
Total (100% =)	(1,341)	(34,775)	(854)	(11,260)	(2,195)	(46,035)
Midwest						
Public	52.4	46.1	59.4	54.7	54.9	47.8
Private	47.6	53.9	40.6	45.3	45.1	52.2
Total (100% =)	(1,696)	(51,357)	(952)	(12,524)	(2,648)	(63,881)
South						
Public	40.4	56.8	38.2	56.9	39.7	56.8
Private	56.9	53.2	61.8	43.1	60.3	43.2
Total (100% =)	(2,764)	(46,628)	(1,344)	(10,860)	(4,108)	(57,488)
West						
Public	54.8	39.2	56.1	46.8	55.3	41.0
Private	45.2	60.8	43.9	53.2	44.7	59.0
Total (100% =)	(679)	(23,360)	(399)	(7,251)	(1,078)	(30,611)

Table 3

The Distribution of Blacks in Traditionally Black and Non-Traditionally Black Institutions of Higher Education in the Non-South and South, 1976

	Public		Private		
	Two-Year	Four-Year	Two-Year	Four-Year	Total (100%=)
GRADUATE					
Non-South					
TBI	.00% (N=0)	4.25% (N=4,956)	.00% (N=0)	1.85% (N=1,068)	6,024
Non-TBI	100.00 (N=112,270)	95.75 (N=111,648)	100.00 (N=8,814)	98.15 (N=56,659)	289,391
Total (100%=)	112,270	111,604	8,814	57,727	295,415
South					
TBI	6.51% (N=5,334)	56.30 (N=88,475)	30.36 (N=2,250)	77.00 (N=48,694)	144,753
Non-TBI	93.49 (N=76,596)	43.70 (N=68,674)	69.63 (N=5,163)	23.00 (N=14,545)	164,978
Total (100%=)	81,930	157,149	7,413	63,239	309,731
GRADUATE AND PROFESSIONALS					
Non-South					
TBI	.23% (N=23)		.00% (N=0)		23
Non-TBI	99.77 (N=10,048)		100.00 (N=8,612)		18,660
Total (100%=)	10,071		8,612		18,683
South					
TBI	30.06% (N=2,294)		53.43% (N=3,099)		5,393
Non-TBI	69.93 (N=5,336)		46.56 (N=2,701)		8,037
Total (100%=)	7,630		5,800		13,430

Table 4

Major Field Distributions of Undergraduates Excluding Undecided Students, by Race and Sex, for the Nation, 1974

Major Field	Male		Female		Male and Female	
	White	Black	White	Black	White	Black
	Two-Year Institutions					
Education	2.8	5.3	5.6	6.3	4.0	5.8
Business	23.4	25.3	27.1	30.9	25.0	27.9
Social Science	2.2	3.4	2.5	2.9	2.3	3.2
Natural Science	4.9	1.4	2.8	1.3	4.0	1.3
Tech. Science	25.4	23.5	2.4	2.1	15.6	13.5
Professions[a]	1.4	1.1	1.7	1.8	1.6	1.4
Soc. Wk. & Pub.Health	9.3	8.8	26.0	23.0	16.5	15.5
Architecture	.6	.3	.2	.1	.4	.2
Agriculture	1.8	.3	.4	.1	1.2	.2
Computer Science	2.4	3.5	1.9	3.2	2.2	3.4
Other[b]	25.7	27.1	29.3	28.4	27.3	27.7
Total (100% =)	(503)	(65)	(375)	(57)	(879)	(122)
% Undecided	26.4	23.4	26.5	21.2	26.5	22.4
	Four-Year Institutions					
Education	7.9	16.2	23.5	26.3	14.8	21.5
Business	20.6	22.4	7.5	14.0	14.7	18.0
Social Science	14.8	19.7	13.6	17.6	14.3	18.6
Natural Science	7.6	4.9	5.1	4.4	6.5	4.6
Tech. Science	17.8	11.3	3.7	3.0	11.5	6.9
Professions	.9	.6	6.0	4.7	3.2	2.8
Soc. Wk. & Pub.Health	1.0	1.9	3.0	4.1	1.9	3.1
Architecture	1.7	.8	.5	.2	1.2	.4
Agriculture	3.9	1.2	1.3	.3	2.7	.7
Computer Science	.8	1.0	.4	.7	.6	.8
Other	23.1	20.0	35.6	24.8	28.7	22.5
Total (100% =)	(1,692)	(132)	(1,358)	(149)	(3,050)	(282)
% Undecided	16.9	19.7	17.4	19.1	17.1	19.4
	Total Undergraduate Enrollment					
Education	6.7	12.6	19.6	20.8	12.4	16.8
Business	21.2	23.4	11.8	18.7	17.0	21.0
Social Science	11.9	14.4	11.2	13.5	11.6	14.0
Natural Science	7.0	3.7	4.6	3.5	5.9	3.6
Tech. Science	19.5	15.4	3.4	2.7	12.4	8.9
Professions[a]	1.0	.8	5.1	3.9	2.8	2.4
Soc. Wk. & Pub.Health	2.9	4.2	8.0	9.4	5.1	6.8
Architecture	1.5	.6	.4	.2	1.0	.4
Agriculture	3.4	.9	1.1	.3	2.4	.6
Computer Science	1.2	1.8	.7	1.4	1.0	1.6
Other[b]	23.7	22.3	34.2	25.8	28.4	24.1
Total (100% =)	(2,196)	(198)	(1,734)	(206)	(3,930)	(404)
% Undecided	19.3	20.9	19.5	19.7	19.4	20.3

[a]Professions at the undergraduate level refer to students who are in Nursing, Pharmacy, Pre-Law, Pre-Medicine and similar pre-professional programs offered at the undergraduate level.

[b]Other majors include: Foreign Languages, Home Economics, Library Science and the precoded category designated in the survey as "others."

[c]Figures in parentheses are in thousands (000).

Table 5

Major Field Distribution of Undergraduates, Excluding Undecided Students by Region, Race and Sex, 1974

Undergraduate Students Major Field	Northeast				Midwest				South				West			
	M		F		M		F		M		F		M		F	
	W	B	W	B	W	B	W	B	W	B	W	B	W	B	W	B
Education	6.3	6.2	19.2	12.9	7.5	9.3	21.5	18.0	7.7	17.3	24.3	27.0	4.9	6.4	11.1	7.2
Business	21.1	21.2	11.1	16.5	21.2	24.2	11.4	17.4	23.9	24.5	12.7	20.4	17.8	19.5	11.8	16.2
Soc. Sci.	14.5	15.6	13.1	13.9	10.4	13.1	9.0	11.9	11.1	14.2	10.2	12.2	11.9	15.1	13.0	17.8
Nat. Sci.	7.6	4.0	4.9	3.2	6.7	3.3	4.1	3.2	6.4	3.9	3.6	5.3	7.6	3.3	5.9	3.9
Tech. Sci.	18.5	12.9	3.6	1.9	21.0	14.1	3.2	2.3	18.7	16.3	3.2	2.8	20.0	16.0	3.8	4.2
Professions	.3	.3	4.2	3.0	.9	.9	5.5	3.6	1.5	.7	5.9	4.2	1.5	1.3	4.6	4.1
Soc. Wk.	2.9	5.3	8.6	15.0	2.9	5.0	8.3	9.9	2.8	4.0	7.7	7.8	3.0	3.0	7.1	7.0
Architecture	.8	.7	.3	.3	1.6	.8	.4	.2	1.8	.5	.4	.1	1.6	.9	.5	.2
Agriculture	1.7	.2	.8	.1	3.8	.3	1.0	.1	3.8	1.3	.9	.4	4.3	.6	1.8	.3
Computer Sci.	1.1	2.4	.7	1.6	1.3	1.7	.7	1.4	1.2	1.8	.8	1.4	1.0	1.4	.5	1.1
Other	25.3	31.2	33.7	31.6	22.9	26.8	34.9	31.9	21.0	15.4	30.0	19.2	26.5	32.5	39.9	38.0
Total (100% =)	(535,465)	(29,749)	(447,112)	(36,403)	(584,704)	(36,565)	(466,042)	(39,649)	(616,180)	(103,635)	(476,369)	(109,021)	(459,879)	(28,178)	(344,761)	(21,698)

Table 6

Major Field Distributions of Graduate and Professional Students, by Race and Sex, for the Nation, 1974

Major Field	Male		Female		Male and Female	
	White	Black	White	Black	White	Black
	GRADUATE STUDENTS					
Education	11.9	25.9	26.8	40.6	17.1	33.3
Business	13.6	11.5	3.9	4.6	10.2	8.0
Social Sci.	13.6	15.2	12.2	10.8	13.1	13.0
Natural Sci.	7.2	3.0	5.3	2.2	6.5	2.6
Tech. Sci.	19.7	6.5	4.0	1.7	14.2	4.1
Professions	2.1	1.4	3.6	2.3	2.6	1.9
Soc. Wk. & Pub. Health	1.5	3.1	5.0	7.0	2.7	5.1
Architecture	1.8	2.5	1.0	1.1	1.6	1.8
Agriculture	3.0	1.5	0.8	0.2	2.2	0.8
Computer Sci.	1.2	0.4	0.4	0.2	0.9	0.3
Undecided	3.1	4.2	3.6	4.3	3.3	4.2
Other	21.3	24.7	33.3	25.1	25.5	24.9
Total (100%=)	(236,428)	(10,940)	(125,242)	(11,152)	(361,670)	(22,092)
Major Field	PROFESSIONAL STUDENTS					
Dentists	10.4	10.8	3.2	8.6	9.1	10.0
Law	41.4	42.2	45.8	39.2	42.2	41.3
Medicine	26.0	32.9	24.6	31.9	25.7	32.6
Vet. Med.	2.8	0.1	3.4	0.3	3.0	0.2
Undecided	1.4	0.3	1.5	0.4	1.4	0.4
Other	18.0	13.7	21.6	19.6	18.6	15.5
Total (100%=)	(144,199)	(6,473)	(31,209)	(2,861)	(175,408)	(9,334)

[a] Professional at the graduate level refers to persons who have previously attained professional degrees in Nursing, Medicine, Law, Dentistry, etc., and are pursuing graduate degrees (i.e., Masters, Ph.D., LLD, etc.)

Table 7

Major Field Distribution of Graduate and Professional Students, by Region, Race and Sex, 1974

Graduate Students Major Field	Northeast				Midwest				South				West			
	M		F		M		F		M		F		M		F	
	W	B	W	B	W	B	W	B	W	B	W	B	W	B	W	B
Education	11.1	21.9	25.8	35.7	11.5	27.5	24.6	43.2	14.2	30.1	32.6	43.3	10.6	15.9	23.7	30.9
Business	13.9	14.4	4.1	4.9	11.8	10.7	3.4	3.8	14.6	9.9	3.7	4.6	14.4	11.5	4.6	5.6
Soc. Sci.	14.4	15.0	12.6	10.5	12.8	15.3	11.2	11.6	14.3	14.4	11.5	9.7	15.2	13.9	13.9	13.7
Nat. Sci.	6.4	1.9	5.2	1.2	7.1	2.0	5.1	1.1	8.0	4.3	5.3	3.1	7.4	3.0	5.7	3.2
Tech. Sci.	21.3	7.4	4.0	1.2	18.9	4.9	3.7	1.2	18.4	7.0	4.2	2.3	20.5	6.5	4.2	1.4
Professions	1.7	1.5	3.0	1.4	2.1	0.9	3.0	1.8	1.0	0.2	3.2	1.8	3.8	1.4	6.3	7.1
Soc. Wk.	1.8	4.9	6.5	9.6	1.2	3.2	4.9	6.3	1.6	2.4	4.8	6.7	1.2	3.1	3.2	5.0
Architecture	2.2	3.5	1.4	1.9	1.5	2.2	0.7	1.1	1.9	1.8	0.8	0.6	1.8	2.5	1.4	1.9
Agriculture	1.6	0.4	0.6	0.1	3.2	1.6	0.9	0.9	3.3	2.2	0.7	0.2	4.0	1.5	1.2	0.2
Computer Sci.	1.1	0.3	0.4	0.3	1.3	0.5	0.4	0.4	1.1	0.3	0.4	0.1	1.4	0.4	0.4	0.3
Undecided	2.4	2.7	2.3	3.1	3.9	5.6	4.7	4.7	3.4	4.2	4.0	4.6	2.4	4.2	3.5	4.0
Other	22.2	26.1	34.2	30.1	24.4	25.5	37.5	24.4	18.2	23.3	28.9	23.0	19.3	24.7	31.9	26.6
Total (100% =)	(59,406)	(2,394)	33,860	2,087	(72,228)	(3,028)	36,040	3,011	(58,802)	4,228	32,617	4,938	(45,992)	1,290	22,725	1,116
Professional Students Major Field																
Dentist	10.5	7.2	3.6	9.1	11.2	6.1	3.1	3.0	11.4	16.7	3.4	9.8	6.6	7.1	2.6	30.8
Law	39.7	38.7	45.5	40.9	32.9	38.6	37.7	31.3	47.7	44.3	58.0	49.5	48.6	49.7	43.7	40.3
Medicine	30.0	37.4	31.8	30.4	26.5	34.2	24.3	23.9	26.8	33.4	26.6	35.4	17.8	20.0	14.2	18.5
Vet. Med.	1.3	0.1	2.2	1.5	4.7	0.2	5.8	0.1	1.9	0	2.3	0.1	3.2	0.1	2.8	0
Undecided	1.0	0.8	1.6	1.1	1.5	0	1.7	0.3	2.1	0.3	1.7	0.3	0.1	0	0.7	0.3
Other	17.5	15.7	15.4	17.0	23.2	20.8	27.4	41.9	10.2	5.3	8.0	5.0	23.7	23.4	36.0	10.2
Total (100% =)	31,195	1,425	7,828	602	45,666	1,670	9,184	867	44,997	2,622	7,462	1,022	22,341	756	6,735	325

Table 8

Major Field Distributions of Black Students in Traditionally Black and Traditionally Non-Black Two-Year Colleges, 1974

Major Field	Black Males	Black Females	Total Blacks
	Traditionally Black Institutions		
Education	23.51	25.84	24.73
Business	15.35	23.54	19.65
Social Science	10.33	7.07	8.62
Natural Science	1.29	2.92	2.14
Technical Science	19.17	1.60	9.96
Professionals[a]	1.69	3.53	2.66
Social Work & Pub. Health	.76	3.06	1.97
Architecture	.00	.00	.00
Agriculture	.00	.00	.00
Computer Science	1.85	2.48	2.18
Other[b]	26.04	29.96	28.10
Total (100% =)	(2,488)	(2,744)	(5,232)
Major Field	Non-Traditionally Black Institutions		
Education	4.59	5.31	4.93
Business	25.69	31.25	28.28
Social Science	3.17	2.68	2.94
Natural Science	1.37	1.14	1.29
Technical Science	23.69	2.08	13.61
Professionals[a]	1.02	1.72	1.35
Social Work & Pub. Healt'	9.15	24.01	16.08
Architecture	.34	.10	.23
Agriculture	.26	.06	.17
Computer Science	3.58	3.26	3.43
Other[b]	27.13	28.32	27.68
Total (100% =)	(62,693)	(54,770)	(117,463)

[a]Professions refer to students who are in Nursing, Pharmacy, Pre-Law, Pre-Medicine and similar pre-professional programs offered at the undergraduate level.

[b]Other majors include: Foreign Languages, Home Economics, Library Science, and the precoded category designated in the survey as "others."

Table 9

Major Field Distributions of Black Students in Traditionally Black and Traditionally Non-Black Four-Year Colleges, 1974

Major Field	Black Males	Black Females	Total Blacks
	Traditionally Black Institutions		
Education	23.60	34.98	29.66
Business	24.69	16.63	20.39
Social Science	19.56	16.89	18.14
Natural Science	5.19	4.37	4.76
Technical Science	9.60	3.03	6.10
Professionals[a]	.43	2.78	1.68
Social Work & Pub. Health	1.47	3.19	2.39
Architecture	.42	.05	.23
Agriculture	1.94	.50	1.17
Computer Science	.66	.46	.56
Other[b]	12.44	17.11	14.93
Total (100% =)	(54,403)	(62,056)	(116,459)
Major Field	Non-Traditionally Black Institutions		
Education	11.03	20.16	15.84
Business	20.86	12.11	16.26
Social Science	19.81	18.16	18.94
Natural Science	4.66	4.38	4.51
Technical Science	12.56	2.91	7.48
Professionals[a]	.77	6.01	3.53
Social Work & Pub. Health	2.26	4.77	3.58
Architecture	.99	.24	.60
Agriculture	.61	.21	.40
Computer Science	1.26	.82	1.03
Other[b]	25.19	30.22	27.84
Total (100% =)	(78,532)	(87,200)	(165,732)

[a]Professions refer to students who are in Nursing, Pharmacy, Pre-Law, Pre-Medicine and similar pre-professional programs offered at the undergraduate level.

[b]Other majors include: Foreign Languages, Home Economics, Library Science, and the precoded category designated in the survey as "others."

Table 10

Major Field Distributions of Black Students in Traditionally Black and Traditionally Non-Black Graduate Institutions, 1974

Major Field	Black Males	Black Females	Total Blacks
	Traditionally Black Institutions		
Education	30.70	45.70	38.97
Business	9.53	5.73	7.43
Social Science	12.24	9.38	10.66
Natural Science	6.12	4.17	5.04
Technical Science	7.45	3.04	5.02
Professionals[a]	.21	.13	.17
Social Work & Pub. Health	1.86	4.64	3.39
Architecture	1.44	.22	.76
Agriculture	2.08	.26	1.08
Computer Science	.05	.04	.05
Other[b]	28.31	26.69	27.42
Total (100% =)	(1,879)	(2,304)	(4,183)
Major Fields	Non-Traditionally Black Institutions		
Education	26.24	41.55	33.79
Business	12.58	4.48	8.58
Social Science	16.61	11.78	4.22
Natural Science	2.50	1.83	2.17
Technical Science	6.65	1.44	4.08
Professionals[a]	1.76	3.07	2.40
Social Work & Pub. Health	3.58	8.00	5.76
Architecture	2.88	1.41	2.16
Agriculture	1.47	.13	.81
Computer Science	.52	.31	.42
Other[b]	25.20	25.99	25.59
Total (100% =)	(8,599)	(8,371)	(16,970)

[a]Professions refer to students who are in Nursing, Pharmacy, Pre-Law, Pre-Medicine, and similar pre-professional programs offered at the undergraduate level.

[b]Other majors include: Foreign Language, Home Economics, Library Science, and the precoded category designated in the survey as "others."

Table 11

Major Field Distributions of Black Students in Traditionally Black and Traditionally Non-Black Professional Institutions, 1974

Major Field	Black Males	Black Females	Total Blacks
	Traditionally Black Institutions		
Dentistry	24.77	14.73	21.92
Medicine	34.56	37.27	35.33
Veterinary Medicine	.00	.00	.00
Law	39.74	40.54	39.97
Others	.94	7.45	2.78
Total (100% =)	(1,389)	(550)	(1,939)
Major Field	Non-Traditionally Black Institutions		
Dentistry	6.95	3.23	5.79
Medicine	32.61	30.90	32.08
Veterinary Medicine	.12	.00	.08
Law	43.10	39.20	41.88
Others	17.22	26.67	20.17
Total (100% =)	(5,063)	(2,291)	(7,354)